LAND APPLICATION SITE

THOMAS J. MARIANNINO

LUTJM 1-4

LUNENBURG COUNTY

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION
FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS

PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS

THOMAS & JOSEPHINE

A This land application agreement is made on 7-1-13 between MARIANNINO referred to here as "Landowner", and Recyc Systems, Inc, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

Landowner:
The Landowner is the owner of record of the real property located in LUNENBURG Co Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges

Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
TM 51(A), P 44			
TM 51(A), P 45			
TM 64(A), P 2			

☐ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one:
☐ The Landowner is the sole owner of the properties identified herein
☑ The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:
1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance with regulatory requirements applicable to such application.

Class B biosolids	Water treatment residuals	Food processing waste	Other industrial sludges
☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No

Josephine Marianino 345 Newcomb Bridge Rd,

Landowner – Printed Name, Title | Signature | Mailing Address & Phone Number

THOMAS J. MARIANNINO | JOSEPHINE A. MARIANNINO | Chase City Va. 23924

Permittee:
Recyc Systems, Inc the Permittee, agrees to apply biosolids and/or industrial residuals on the Landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia.

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

☐ I reviewed the document(s) assigning signatory authority to the person signing for landowner above. I will make a copy of this document(s) available to DEQ for review upon request. (Do not check this box if the landowner signs this agreement.)

PO Box 562 Remington, Virginia 22734

Permittee Authorized Representative Printed Name | Signature | Mailing Address

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT

Permittee: Recyc Systems, Inc County or City: LUNENBURG Co.

Landowner: THOMAS & JOSEPHINE MARIANNINO

Landowner Site Management Requirements:

I the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site.

1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.

2. Public Access
   a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
   b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
   c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by DEQ.

3. Crop Restrictions:
   a Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
   b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
   c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
   d Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
   e Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).

4. Livestock Access Restrictions:
   Following biosolids application to pasture or hayland sites:
   a. Meat producing livestock shall not be grazed for 30 days,
   b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
   c Other animals shall be restricted from grazing for 30 days;

5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;

6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

Thomas J. Marianino Josephine Marianino 7-1-13

Landowner's Signature Date

Thomas J. Marianino Josephine Marianino

Farm Operator Signature Mailing Address & Phone Number

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT

Landowner Coordination Form

This form is used by the Permittee to identify properties (tax parcels) that are authorized to receive biosolids and/or industrial residuals, and each of the legal landowners of those tax parcels. A Land Application Agreement-Biosolids and Industrial Residuals from original signature must be attached for each legal landowner identified below prior to land application at the identified parcels.

Permittee: Recyc Systems Inc. Site Name: Thomas J. Mariannino

County or City: Lunenburg

Please Print Signature not required on this page

Tax Parcel ID(s)	Landowners (s)
51-A-44	Thomas J. and Josephine A. Mariannino
51-A-45	Thomas J. and Josephine A. Mariannino
64-A-2	Thomas J. and Josephine A. Mariannino

FARM DATA SHEET

SITE NAME:	Thomas J. Mariannino	**COUNTY:**	Lunenburg
OWNER:	Thomas J. and Josephine A. Mariannino	**OPERATOR:**	Thomas J. Mariannino
OWNER'S ADDRESS:	345 Newcomb Bridge Rd. Chase City, VA 23924	**OPERATOR'S ADDRESS:**	345 Newcomb Bridge Rd. Chase City, VA 23924
OWNER'S TELEPHONE:	434-372-4397	**OPERATOR'S TELEPHONE:**	434-372-4397
GENERAL FARM TYPE:	Hay/Pasture	**CELL PHONE:**	434-738-5710
# CATTLE:	100	**EMAIL:**	-
LAGOON or SLURRY:	None	**LATITUDE:**	36°52'29"N
TOPO QUAD:	Chase City	**LONGITUDE:**	78°27'37"W
COMMENTS:			
			BB

RECYC SYSTEMS, INC
FIELD DATA SHEET

Field Identification	Gross Acres	Environmentally Sensitive Soils				Hydro Map	Tax Map #	FSA Tract #
		Water Table	Bed Rock/Shallow	Surf/Leach	Freq Flood			
LUTJM 1	32.3	3B Dec.-Mar. 6 Nov.-Apr.	3B	-	6 Jan.-Dec.	CM 02	TM 51-A-44	T 2703 F 1
LUTJM 2	24.2	6 Nov.-Apr.	21D2	-	6 Jan.-Dec.	CM 02	TM 51-A-44	T 2703 F 2, 3, 4
LUTJM 3	32.7	6 Nov.-Apr.	-	-	6 Jan.-Dec.	CM 02	TM 51-A-45 TM 64-A-2	T 16492 F 1, 2
LUTJM 4	32.6	3B Dec.-Mar. 6 Nov.-Apr.	-	-	6 Jan.-Dec.	CM 02	TM 51-A-45 TM 64-A-2	T 16492 F 3, 4, 5
TOTAL ACRES IN SITE	121.8							

Virginia Cooperative Extension
Soil Test Report

Questions? Contact:
Mecklenburg County Office
P.O. Box 420
Boydton, VA 23917-0420
434-738-6191

Virginia Tech Soil Testing Laboratory
145 Smyth Hall (0465)
Blacksburg, VA 24061
www.soiltest.vt.edu

SEE NOTES: 1 3

Flt 32
House

OWNER
SUNNYFIELD FARM
TOM MARIANNINO
345 NEWCOMB BRIDGE RD
CHASE CITY, VA 23924

COPY FOR

SAMPLE HISTORY

Sample ID	Field ID	LAST CROP		LAST LIME APPLICATION		SOIL INFORMATION				
		Name	Yield	Months Prev.	Tons/Acre	SMU-1 %	SMU-2 %	SMU-3 %	Yield Estimate	Productivity Group
FRT32	LAWN			13-18	1.1-2.0					

LAB TEST RESULTS (see Note 1)

Analysis	P (lb/A)	K (lb/A)	Ca (lb/A)	Mg (lb/A)	Zn (ppm)	Mn (ppm)	Cu (ppm)	Fe (ppm)	B (ppm)	S.Salts (ppm)
Result	15	143	719	195	1.3	8.0	0.5	31.1	0.1	
Rating	M-	M	L+	H+	SUFF	SUFF	SUFF	SUFF	SUFF	

Analysis	Soil pH	Buffer Index	Est.-CEC (meq/100g)	Acidity (%)	Base Sat. (%)	Ca Sat. (%)	Mg Sat. (%)	K Sat. (%)	Organic Matter (%)
Result	5.5	6.01	5.1	45.4	54.6	35.2	15.8	3.6	

FERTILIZER AND LIMESTONE RECOMMENDATIONS

op: Orchardgrass/Fescue-Clover Establishment (31)

Lime, TONS/AC		Fertilizer, lb/A		
Amount	Type	N	P205	K20
2.25	AG	40	140	130

620. For best results, the lime should be applied six months to one year ahead of time.

232/!Q3P 6!boe!L 3P !sf dpn n foebujpot!x jmfltvqqmzlu f!offefe!ovusjfou!gps!ftubcrjti n foulboe!pof!i bswftuzfbs(t!hspx u /

934/!!Bqqmzlu f!ojusphfo!bulu f!ujn f!u f!hsbttljt!tffefe!jo!rbuf!tvn n fs-!fbsmz!gpnps!fbsmz!tqsjoh/!!Pwfstffe!u f!hsbttlx ju !drpwfs!u f!gpnpx joh! Gfcsvbsz/

: : 1/!X f!bsf!uszjoh!up!jn qspwf!pvs!tfswjdf/!QMFBTF!ub! f!b!n pn foulp!dpn qrfuf!pvs!csjfg!!bopozn pvt!dvtupn fs!tvswfz!bu! ujozvsnfupn Qpjnftu.vswfz

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Virginia Cooperative Extension
Soil Test Report

Questions? Contact:
Mecklenburg County Office
P.O. Box 420
Boydton, VA 23917-0420
434-738-6191

Virginia Tech Soil Testing Laboratory
145 Smyth Hall (0465)
Blacksburg, VA 24061
www.soiltest.vt.edu

SEE NOTES: 1 3

Back fields House

OWNER
SUNNYFIELD FARM
TOM MARIANNINO
345 NEWCOMB BRIDGE RD
CHASE CITY, VA 23924

COPY FOR

SAMPLE HISTORY

Sample ID	Field ID	LAST CROP		LAST LIME APPLICATION		SOIL INFORMATION				
		Name	Yield	Months Prev.	Tons/Acre	SMU-1 %	SMU-2 %	SMU-3 %	Yield Estimate	Productivity Group
BF2	LUTJM 2	Orchardgrass/Fescue-Clover Establishment (31)								

LAB TEST RESULTS (see Note 1)

Analysis	P (lb/A)	K (lb/A)	Ca (lb/A)	Mg (lb/A)	Zn (ppm)	Mn (ppm)	Cu (ppm)	Fe (ppm)	B (ppm)	S.Salts (ppm)
Result	8	99	1085	214	1.5	12.9	0.7	45.6	0.3	
Rating	L	M-	M	H+	SUFF	SUFF	SUFF	SUFF	SUFF	

Analysis	Soil pH	Buffer Index	Est. CEC (meq/100g)	Acidity (%)	Base Sat. (%)	Ca Sat. (%)	Mg Sat. (%)	K Sat. (%)	Organic Matter (%)
Result	5.8	6.009	5.6	33.1	66.9	48.7	15.9	2.3	

FERTILIZER AND LIMESTONE RECOMMENDATIONS

Crop: Orchardgrass/Fescue-Clover Establishment (31)

Lime, TONS/AC		Fertilizer, lb/A		
Amount	Type	N	P205	K20
2	AG	40	160	140

121. P2O5 and K2O recommendations will supply the needed nutrients for establishment and one harvest year's growth.

823. Apply the nitrogen at the time the grass is seeded in late summer, early fall or early spring. Overseed the grass with clover the following February.

990. We are trying to improve our service. PLEASE take a moment to complete our brief, anonymous customer survey at tinyurl.com/soiltestsurvey

991. Numbered notes are viewable at http://www.soiltest.vt.edu/Files/publications.html

Virginia Cooperative Extension
Soil Test Report

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Boydton, VA 23917-0420
434-738-6191

Virginia Tech Soil Testing Laboratory
145 Smyth Hall (0465)
Blacksburg, VA 24061
www.soiltest.vt.edu

SEE NOTES:
1 3

Front Newfield

OWNER
SUNNYFIELD FARM
TOM MARIANNINO
345 NEWCOMB BRIDGE RD
CHASE CITY, VA 23924

COPY FOR

SAMPLE HISTORY

Sample ID	Field ID	LAST CROP		LAST LIME APPLICATION		SOIL INFORMATION				
		Name	Yield	Months Prev.	Tons/Acre	SMU-1 %	SMU-2 %	SMU-3 %	Yield Estimate	Productivity Group
NBR32	FIELD 3	Orchardgrass/Fescue-Clover Establishment (31)								

LAB TEST RESULTS (see Note 1)

Analysis	P (lb/A)	K (lb/A)	Ca (lb/A)	Mg (lb/A)	Zn (ppm)	Mn (ppm)	Cu (ppm)	Fe (ppm)	B (ppm)	S.Salts (ppm)
Result	12	170	1229	340	2.8	23.1	0.5	27.4	0.3	
Rating	M-	M+	M+	VH	SUFF	SUFF	SUFF	SUFF	SUFF	

Analysis	Soil pH	Buffer Index	Est.-CEC (meq/100g)	Acidity (%)	Base Sat. (%)	Ca Sat. (%)	Mg Sat. (%)	K Sat. (%)	Organic Matter (%)
Result	5.6	5.90	7.7	38.8	61.2	40.1	18.3	2.8	

FERTILIZER AND LIMESTONE RECOMMENDATIONS

Crop: Orchardgrass/Fescue-Clover Establishment (31)

Lime, TONS/AC		Fertilizer, lb/A		
Amount	Type	N	P2O5	K2O
3.25	AG	40	140	120

620. For best results, the lime should be applied six months to one year ahead of time.

121. P2O5 and K2O recommendations will supply the needed nutrients for establishment and one harvest year's growth.

823. Apply the nitrogen at the time the grass is seeded in late summer, early fall or early spring. Overseed the grass with clover the following February.

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Virginia Cooperative Extension
Soil Test Report

Questions? Contact:
Lunenburg County Office
11409 Courthouse Road
General Delivery
Lunenburg, VA 23952
434-696-5526

Virginia Tech Soil Testing Laboratory
145 Smyth Hall (0465)
Blacksburg, VA 24061
www.soiltest.vt.edu

SEE NOTES: 1 3

Rear Field Acc. St.

COPY FOR

MARIANNINO TOM
SUNNYFIELD FARM
345 NEWCOMB BRIDGE RD
CHASE CITY , VA 23924

SAMPLE HISTORY

Sample ID	Field ID	LAST CROP Name	LAST CROP Yield	LAST LIME APPLICATION Months Prev.	LAST LIME APPLICATION Tons/Acre	SOIL INFORMATION SMU-1 %	SMU-2 %	SMU-3 %	Yield Estimate	Productivity Group
FAST	LUTJM 4	Orchardgrass/Fescue-Clover Establishment (31)				3B 73	6A 27	5C2 0		

LAB TEST RESULTS (see Note 1)

Analysis	P (lb/A)	K (lb/A)	Ca (lb/A)	Mg (lb/A)	Zn (ppm)	Mn (ppm)	Cu (ppm)	Fe (ppm)	B (ppm)	S.Salts (ppm)
Result	15	108	1031	167	2.0	16.6	0.7	83.4	0.3	
Rating	M-	M	M	H-	SUFF	SUFF	SUFF	SUFF	SUFF	

Analysis	Soil pH	Buffer Index	Est. CEC (meq/100g)	Acidity (%)	Base Sat. (%)	Ca Sat. (%)	Mg Sat. (%)	K Sat. (%)	Organic Matter (%)
Result	5.4	5.99	5.8	41.7	58.3	44.1	11.8	2.4	

FERTILIZER AND LIMESTONE RECOMMENDATIONS

Crop: Orchardgrass/Fescue-Clover Establishment (31)

Lime, TONS/AC		Fertilizer, lb/A		
Amount	Type	N	P2O5	K2O
2.75	AG	40	140	130

620. For best results, the lime should be applied six months to one year ahead of time.

121. P2O5 and K2O recommendations will supply the needed nutrients for establishment and one harvest year's growth.

823. Apply the nitrogen at the time the grass is seeded in late summer, early fall or early spring. Overseed the grass with clover the following February.

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Report Number: 12-156-0508
Account Number: 70594

www.aleastern.com

A&L Eastern Laboratories

7621 Whitepine Road Richmond, Virginia 23237 (804) 743-9401 Fax (804) 271-6446

Send To: RECYC SYSTEMS INC
SUSAN TRUMBO
8455 WHITESHOP RD
CULPEPER VA 22701

Grower:
MARIANNINO/LUTJM
LUNENBERG

Submitted By: J B CRENSHAW
Farm ID:

SOIL ANALYSIS REPORT

Analytical Method(s):
Mehlich 3

Date Received: 06/04/2012 **Date Of Analysis:** 06/05/2012 **Date Of Report:** 06/06/2012

Sample ID / Field ID	Lab Number	Organic Matter			Phosphorus				Potassium		Magnesium		Calcium		Sodium		pH		Acidity	C.E.C
		%	Rate	ENR lbs/A	Mehlich 3 ppm	Mehlich 3 Rate	Reserve ppm	Reserve Rate	K ppm	K Rate	Mg ppm	Mg Rate	Ca ppm	Ca Rate	Na ppm	Na Rate	Soil pH	Buffer Index	H meq/100g	meq/100g
1A	03552	2.5	L	95	37	M			44	L	71	H	313	L			5.1	6.79	1.4	3.6
1B	03554	2.3	L	91	46	M			44	L	70	H	344	L			5.2	6.80	1.3	3.7
2	03555	2.0	L	84	10	VL			63	L	98	H	437	M			5.5	6.82	1.1	4.3

Sample ID / Field ID	Percent Base Saturation K %	Mg %	Ca %	Na %	H %	Nitrate NO_3N ppm	Nitrate Rate	Sulfur S ppm	Sulfur Rate	Zinc Zn ppm	Zinc Rate	Manganese Mn ppm	Manganese Rate	Iron Fe ppm	Iron Rate	Copper Cu ppm	Copper Rate	Boron B ppm	Boron Rate	Soluble Salts SS ms/cm	Soluble Salts Rate	Chloride Cl ppm	Chloride Rate	Aluminum Al ppm
1A	3.1	16.4	43.5		38.0																			
1B	3.0	15.8	46.5		33.8																			
2	3.8	19.0	50.8		25.5																			

Values on this report represent the plant available nutrients in the soil. Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High). ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams). Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to sample(s) tested. Samples are retained a maximum of thirty days after testing.

Analysis prepared by: A&L Eastern Laboratories, Inc.

by: Pauric McGroary

Pauric McGroary

Report Number: 12-156-0508
Account Number: 70594

www.aleastern.com

A&L Eastern Laboratories

7621 Whitepine Road Richmond, Virginia 23237 (804) 743-9401 Fax (804) 271-6446

Send To: RECYC SYSTEMS INC
SUSAN TRUMBO
8455 WHITESHOP RD
CULPEPER VA 22701

Grower:
MARIANNINO/LUTJM
LUNENBERG

Submitted By: J B CRENSHAW
Farm ID:

Date Received: 06/04/2012
Date Of Report: 06/06/2012

SOIL FERTILITY RECOMMENDATIONS

Sample ID Field ID	Intended Crop	Yield Goal	Lime Tons/A	Nitrogen N lb/A	Phosphate P_2O_5 lb/A	Potash K_2O lb/A	Magnesium Mg lb/A	Sulfur S lb/A	Zinc Zn lb/A	Manganese Mn lb/A	Iron Fe lb/A	Copper Cu lb/A	Boron B lb/A
1A	Adjust pH to 6.8	0	2.0				9						
1B	Adjust pH to 6.8	0	2.0				10						
2	Adjust pH to 6.8	0	1.8				0						

Comments:

Sample(s) 1A, 1B:

If dolomitic lime is not used, apply required magnesium with magnesium oxide. Epsom Salts, K-Mag or Sul-PO-Mag.

"The recommendations are based on research data and experience, but NO GUARANTEE or WARRANTY expressed or implied, concerning crop performance is made."

Pauric McGroary

THE PLANNER IS NOT STATE CERTIFIED

Nutrient Management Plan Balance Sheet
(Spring, 2014-Summer, 2016)
Thomas J. Mariannino
Planner: Recyc Systems, Inc

Tract: 2703 **Location: Lunenburg**
(N = N based, 1P = P based, 1.5P = P based at 1.5 removal, 0P = No P allowed)

Field CFSA No. /Name	Size (ac) Total/ Used	Yr.	Crop	Needs N-P-K (lbs/ac)	Leg /Man Resid	Manure/Biosld Rate & Type (season)	IT (d)	Man/Bios N-P-K (lbs/ac)	Net = Needs - appld N-P-K (lbs/ac)	Sum P rem cred	Commercial N-P-K (lbs/ac)	Notes	
1/LUTJM 1(N)	32/32	2014	Grass Pasture	50-80-80	0/0				50-80-80	N/A			
2, 3, 4/LUTJM 2(N)	24/24	2014	Grass Pasture	50-30-40	0/0				50-30-40	N/A			

Commercial Application Methods:
br - Broadcast ba - Banded sd - Sidedress
Notes:

Tract: 16492 **Location: Lunenburg**
(N = N based, 1P = P based, 1.5P = P based at 1.5 removal, 0P = No P allowed)

Field CFSA No. /Name	Size (ac) Total/ Used	Yr.	Crop	Needs N-P-K (lbs/ac)	Leg /Man Resid	Manure/Biosld Rate & Type (season)	IT (d)	Man/Bios N-P-K (lbs/ac)	Net = Needs - appld N-P-K (lbs/ac)	Sum P rem cred	Commercial N-P-K (lbs/ac)	Notes	
1, 2/LUTJM 3(N)	33/33	2014	Fescue grass hay mt.	70-50-95	0/0				70-50-95	N/A			
3, 4, 5/LUTJM 4(N)	33/33	2014	Fescue grass hay mt.	90-80-170	0/0				90-80-170	N/A			

Commercial Application Methods:
br - Broadcast ba - Banded sd - Sidedress
Notes:

Soil Test Summary

Tract	Field	Acre	Date	P2O5	K2O	Lab	Soil pH	Lime Date	rec. lime tons/Ac
2703	LUTJM 1	32	2014-Wi	M- (15 P lbs/acre)	M (143 K lbs/acre)	Virginia Tech	5.5		
2703	LUTJM 2	24	2014-Wi	L (8 P lbs/acre)	M- (99 K lbs/acre)	Virginia Tech	5.8		
16492	LUTJM 3	33	2014-Wi	L+ (12 P lbs/acre)	M+ (170 K lbs/acre)	Virginia Tech	5.6		
16492	LUTJM 4	33	2014-Wi	M- (15 P lbs/acre)	M (108 K lbs/acre)	Virginia Tech	5.4		

Field Productivities for Major Crops

Tract Name	Tract/ Field	Field Name	Acres	Predominant Soil Series	Corn	Small Grain	Alfalfa	Grass Hay	Environmental Warnings
2703	2703/1	LUTJM 1	32	Georgeville	IVa	III	III	III	
	2703/2, 3, 4	LUTJM 2	24	Georgeville	IVb	III	III	IV	
16492	16492/1, 2	LUTJM 3	33	Georgeville	IVb	III	III	IV	
	16492/3, 4,	LUTJM 4	33	Bolling	IIIb	II	Not Suited	II	

Yield Range

Field Productivity Group	Corn Grain Bu/Acre	Barley/Intensive Wheat Bu/Acre	Std. Wheat Bu/Acre	Alfalfa Tons/Acre	Grass/Hay Tons/Acre
I	>170	>80	>64	>6	>4.0
II	150-170	70-80	56-64	4-6	3.5-4.0
III	130-150	60-70	48-56	<4	3.0-3.5
IV	100-130	50-60	40-48	NA	<3.0
V	<100	<50	<40	NA	NA

Farm Summary Report

Plan: **New Plan** **Spring, 2014 - Summer, 2016**

Farm Name: **Thomas J. Mariannino**
Location: Lunenburg
Specialist: Recyc Systems, Inc
N-based Acres: 121.8
P-based Acres: 0.0

Tract Name: **2703**
FSA Number: 2703
Location: Lunenburg

Field Name: **LUTJM 1**
Total Acres: 32.30 Usable Acres: 32.30
FSA Number: 1
Tract: 2703
Location: Lunenburg
Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Wi-2014	5.5	M-(15 P lbs/acre)	M(143 K lbs/acre)	Virginia Tech

Soils:

PERCENT	SYMBOL	SOIL SERIES

20	3B	Bolling
3	6	Augusta Chewacla Toccoa
25	8B2	Georgeville
29	8C2	Georgeville
14	15B	Masada
9	16C2	Mecklenburg

Field Warnings:

Crop Rotation:

PLANTED	YIELD	CROP NAME
2014-Sp	1.8 * acres/AU	Orchard grass/fescue pastures<=25% legume, maint. - No Till

Field Name: LUTJM 2

Total Acres:	24.20	Usable Acres:	24.20
FSA Number:	2, 3, 4		
Tract:	2703		
Location:		Lunenburg	
Slope Class:	C	Hydrologic Group:	B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Wi-2014	5.8	L(8 P lbs/acre)	M-(99 K lbs/acre)	Virginia Tech

Soils:

PERCENT	SYMBOL	SOIL SERIES
17	6	Augusta Chewacla Toccoa
37	8B2	Georgeville

28	8C2	Georgeville
19	21D2	Tatum

Field Warnings:

Crop Rotation:

PLANTED	YIELD	CROP NAME
2014-Sp	2.4 * acres/AU	Orchard grass/fescue pastures<=25% legume, maint. - No Till

Tract Name: **16492**
FSA Number: 16492
Location: Lunenburg

Field Name: **LUTJM 3**
Total Acres: 32.70 Usable Acres: 32.70
FSA Number: 1, 2
Tract: 16492
Location: Lunenburg
Slope Class: C Hydrologic Group: C

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Wi-2014	5.6	L+(12 P lbs/acre)	M+(170 K lbs/acre)	Virginia Tech

Soils:

PERCENT	SYMBOL	SOIL SERIES
9	6	Augusta Chewacla Toccoa
24	8B2	Georgeville

23	8C2 Georgeville	Georgeville
10	15B Masada	Masada
4	16B2 Mecklenburg	Mecklenburg
27	16C2 Mecklenburg	Mecklenburg
4	20D Poindexter	Poindexter

Field Warnings:

Crop Rotation:

PLANTED	YIELD	CROP NAME
2014-Sp	2.4 * tons	Fescue grass (hay), maint. - No Till

Field Name: LUTJM 4

Total Acres:	32.60	Usable Acres:	32.60
FSA Number:	3, 4, 5		
Tract:	16492		
Location:		Lunenburg	
Slope Class:	B	Hydrologic Group:	C

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Wi-2014	5.4	M-(15 P lbs/acre)	M(108 K lbs/acre)	Virginia Tech

Soils:

PERCENT	SYMBOL	SOIL SERIES
55	3B Bolling	Bolling
5	5B2 Cecil	Cecil
9	5C2 Cecil	Cecil

29	6	Augusta Chewacla Toccoa
3	11C2	Herndon

Field Warnings:

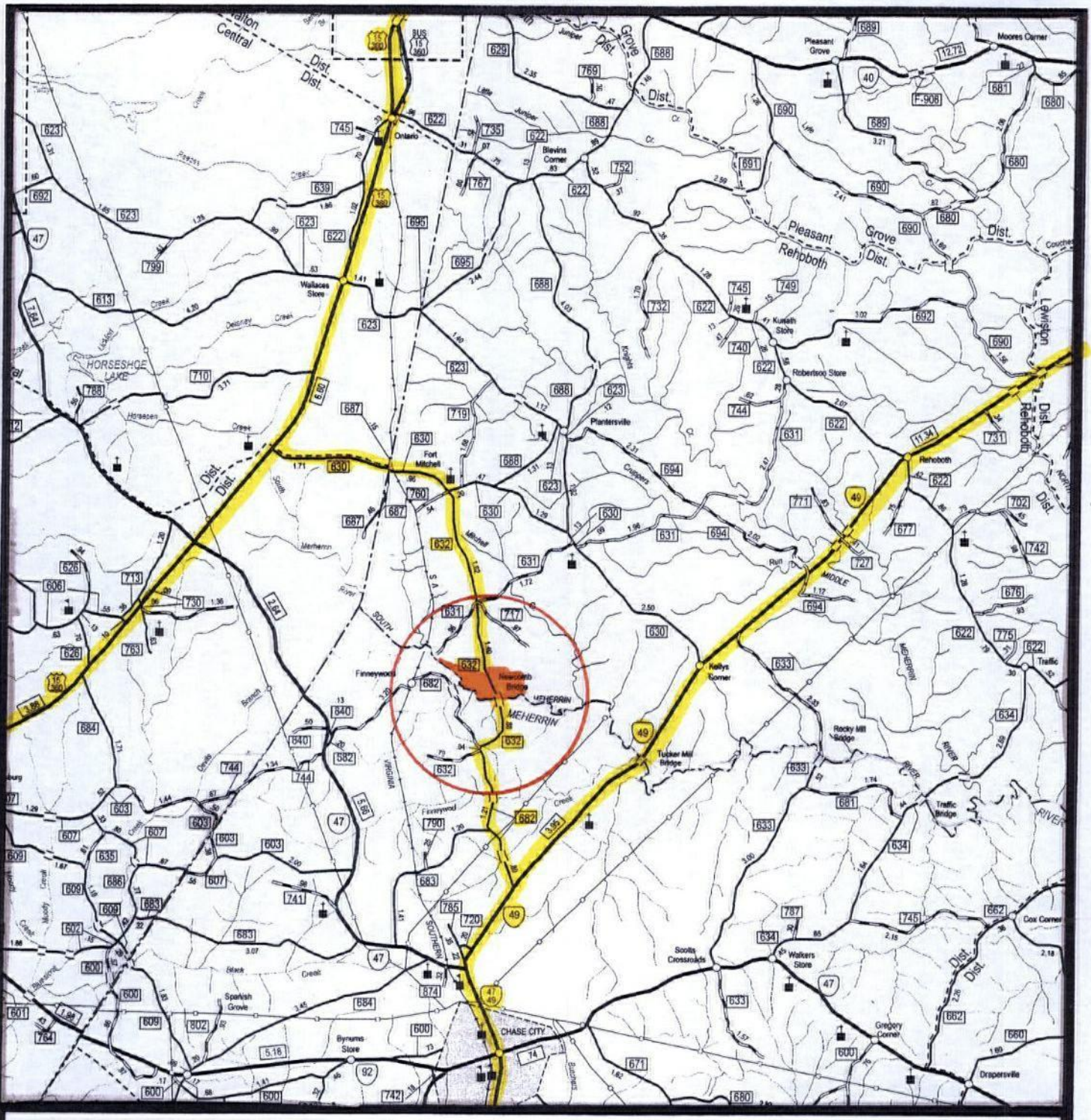
Crop Rotation:

PLANTED	YIELD	CROP NAME
2014-Sp	3.5 * tons	Fescue grass (hay), maint. - No Till

MAPS

Recyc Systems™ Inc.

(Biosolids Land Application)



Scale: 1"= 2 miles

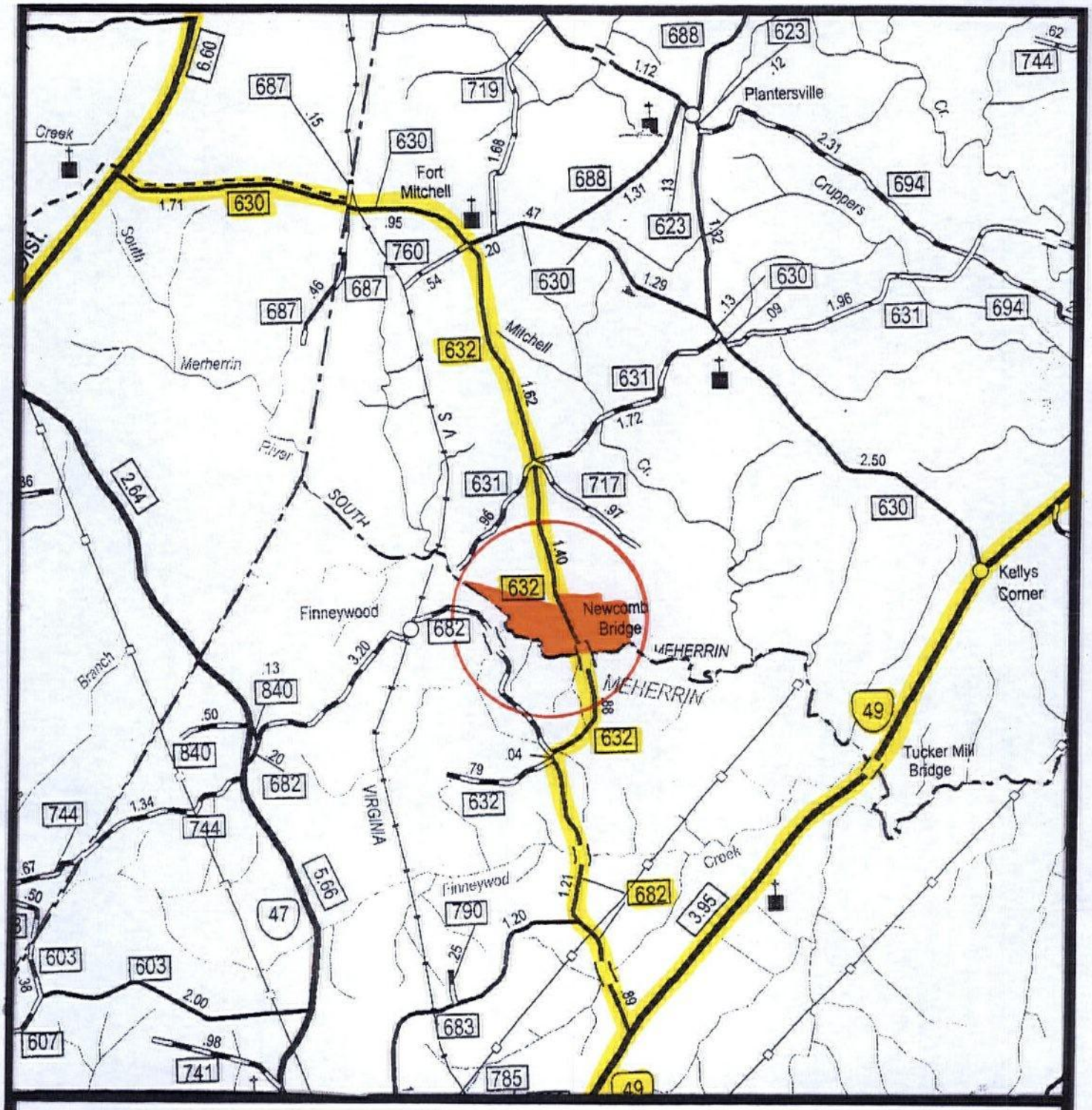
LUTJM 1-4

VICINITY MAP

N

Recyc Systems™ Inc.

(Biosolids Land Application)



Scale: 1"= 1 mile

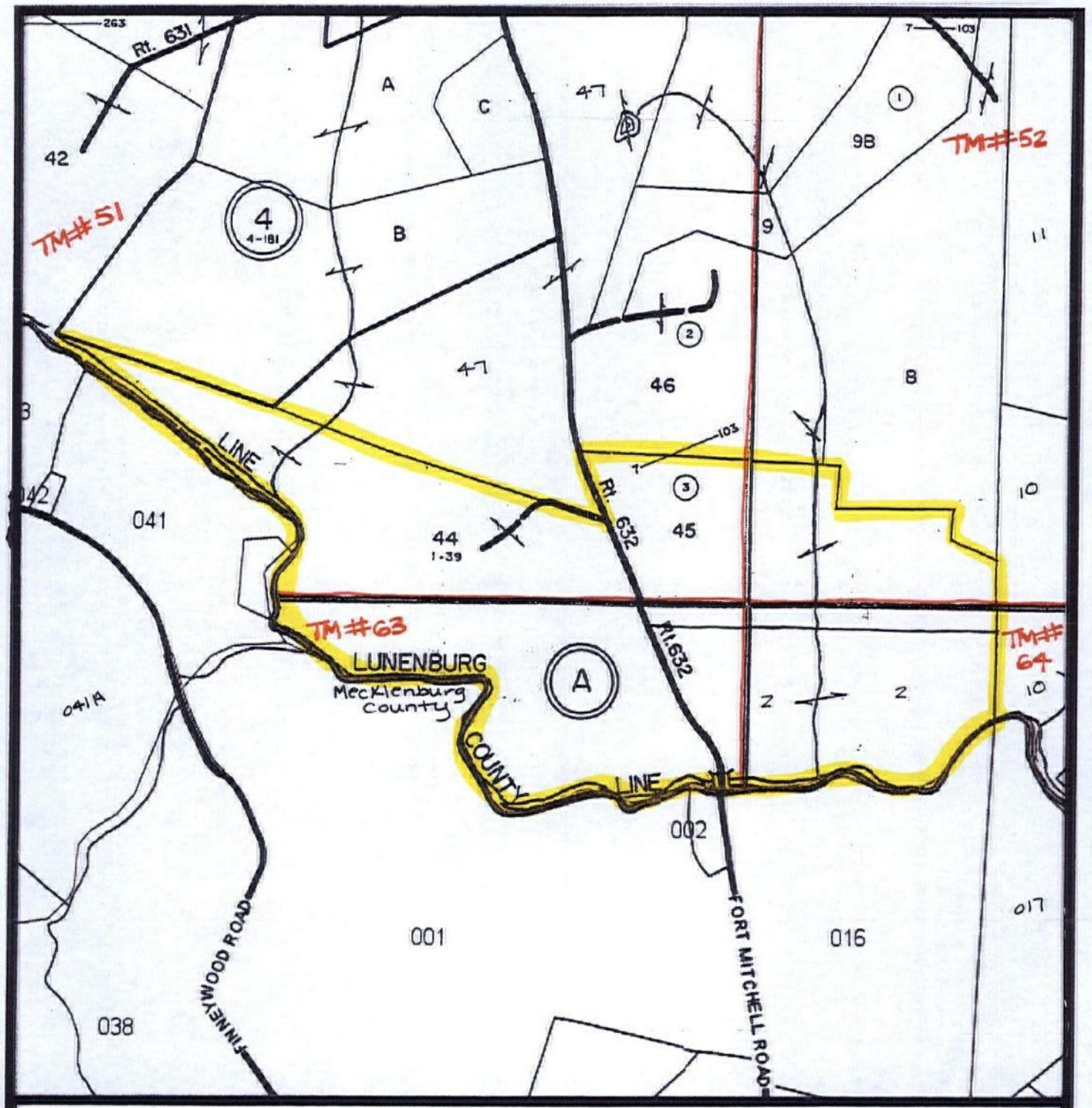
LUTJM 1-4

VICINITY MAP

N

Recyc Systems™ Inc.

(Biosolids Land Application)



Scale: Not to scale

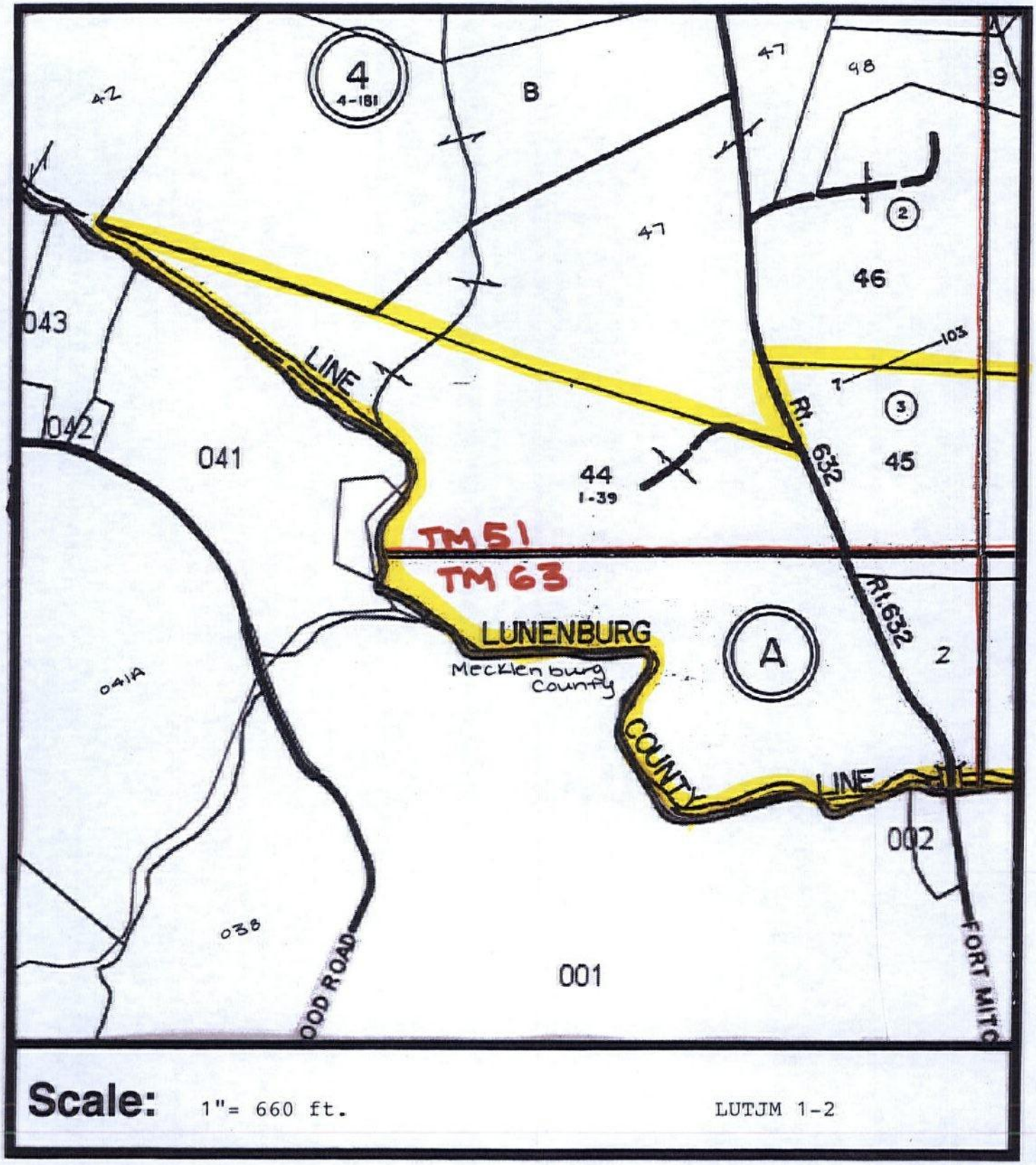
LUTJM 1-4

TAX MAP

N

Recyc Systems™ Inc.

(Biosolids Land Application)



Scale: 1"= 660 ft.

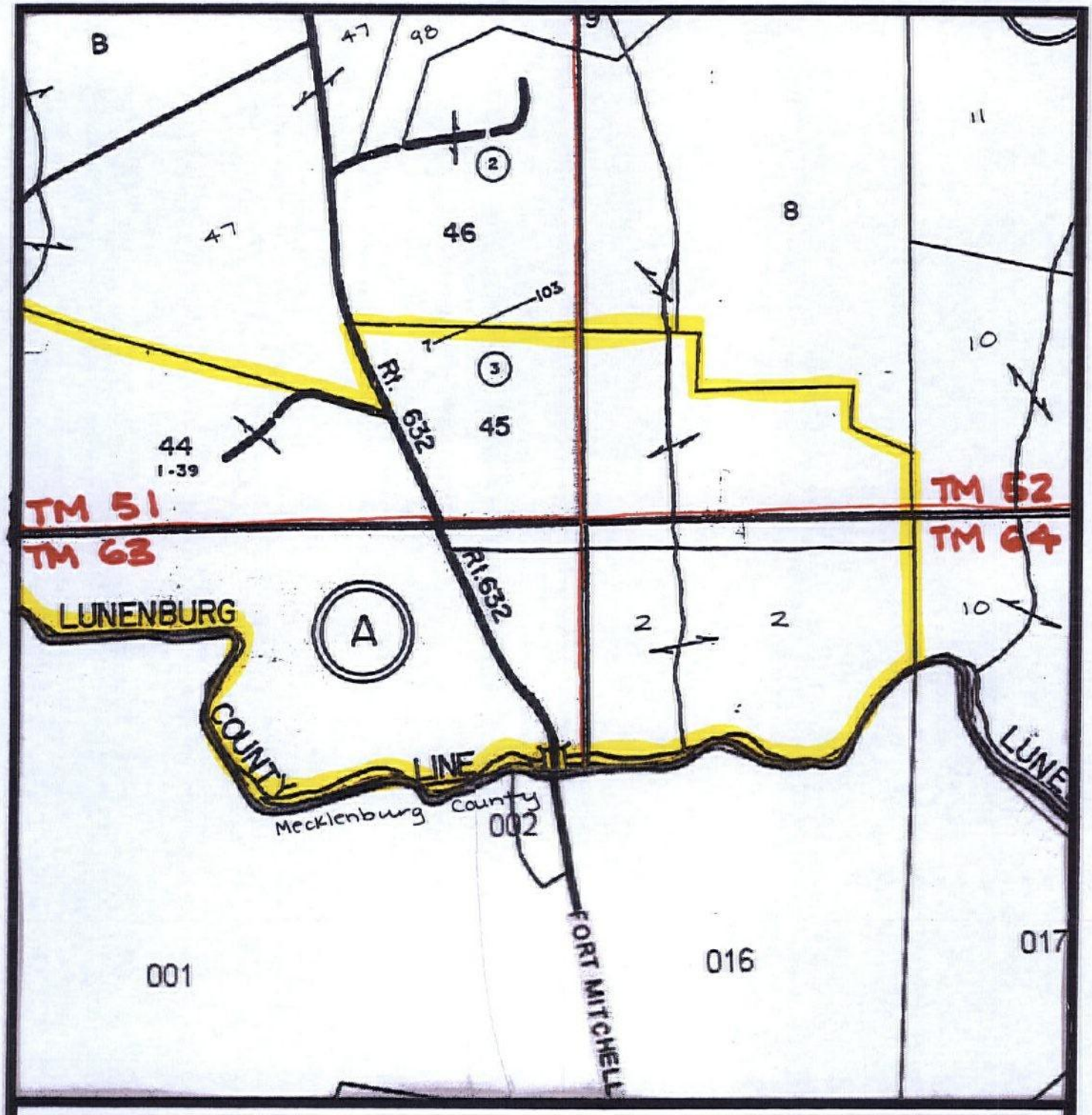
LUTJM 1-2

TAX MAP

N

Recyc Systems™ Inc.

(Biosolids Land Application)



Scale: 1"= 660 ft.

LUTJM 1, 3-4

TAX MAP

N

ADJOINING LANDOWNERS

Thomas J. Mariannino

LUNENBURG COUNTY

Tax Map	Parcel #	Owner Name(s)
51	42	Florence C. Rutledge
	46	Sandra Ann Hazelfeldt
	47	Ronald E. or Frances I. Newcomb
51-4	B	David Craig or Sherry D. Crissman
52	8	Illinois Municipal Retirement Fund
	10	Illinois Municipal Retirement Fund

MECKLENBURG COUNTY

30-A	41	Dennis T. and Stacy R. Rice
	43	Kevin M. and Melissa M. Price
40-A	1	Forestree GM LLC
	2	Forestree GM LLC
	16	Forestree GM LLC
	17	Thomas N. and Marie A. Snead

Recyc Systems™ Inc.

(Biosolids Land Application)

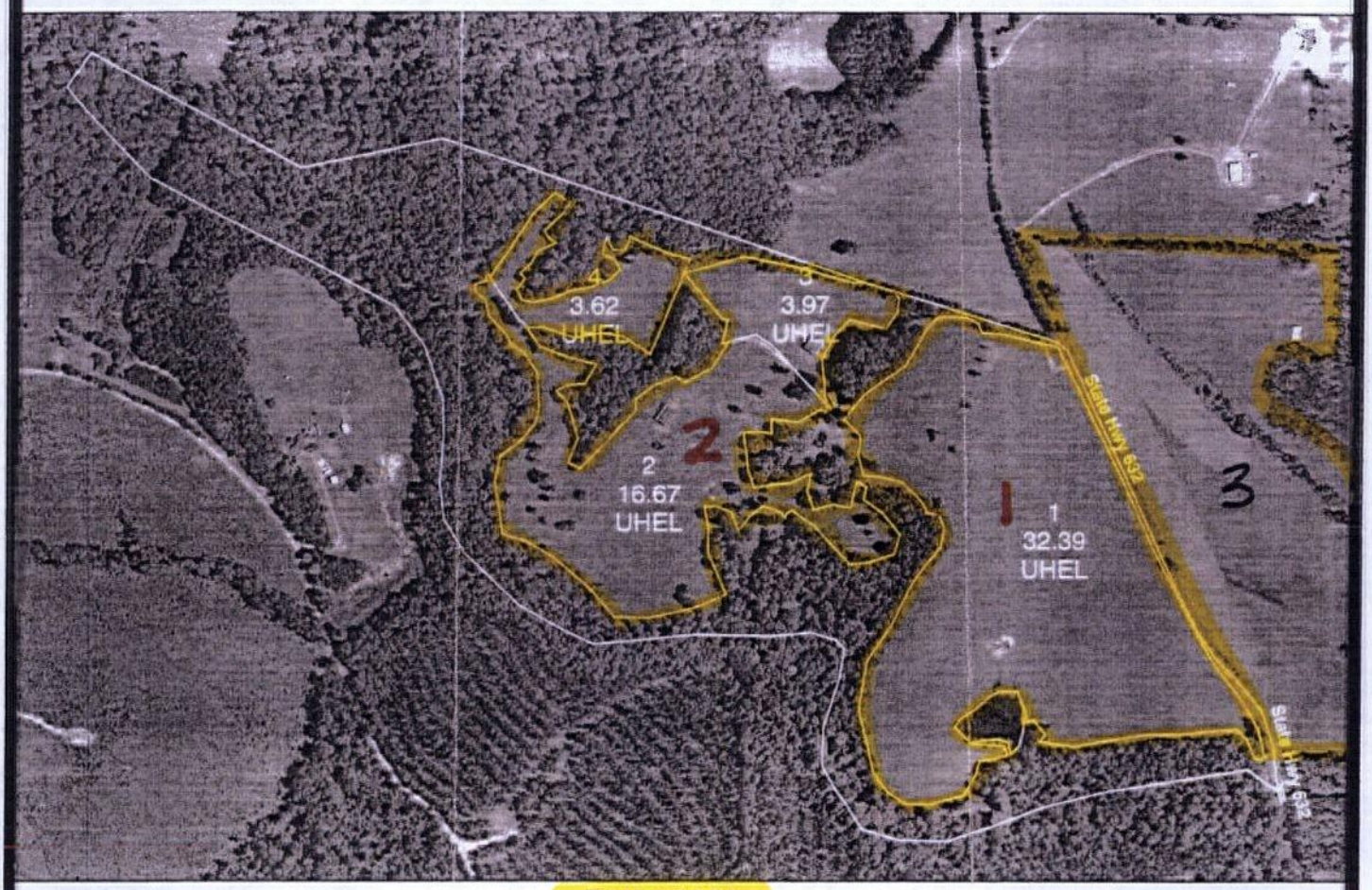
Scale: 1"= 660 ft.

LUTJM 1-4

SOIL MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)



Farm: 1231
Tract: 2703

USDA FSA
Lunenburg County, VA

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original derimination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

Scale: 1"= 660 ft.

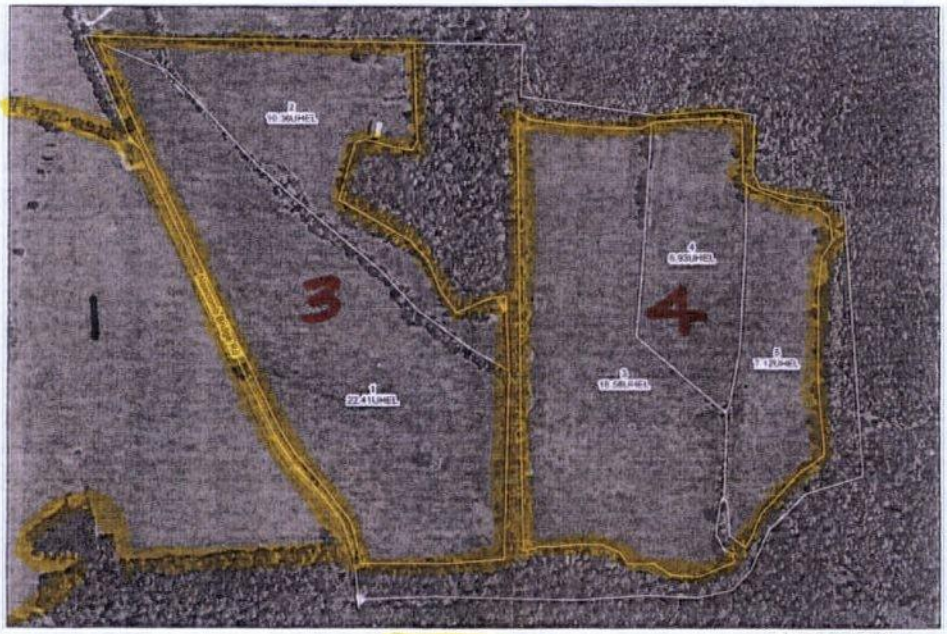
LUTJM 1-2

AERIAL MAP

N

Recyc Systems™ Inc.

(Biosolids Land Application)



Farm: 3830
Tract: 16492

USDA FSA

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original demination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

Lunenburg County, VA
January 30, 2014

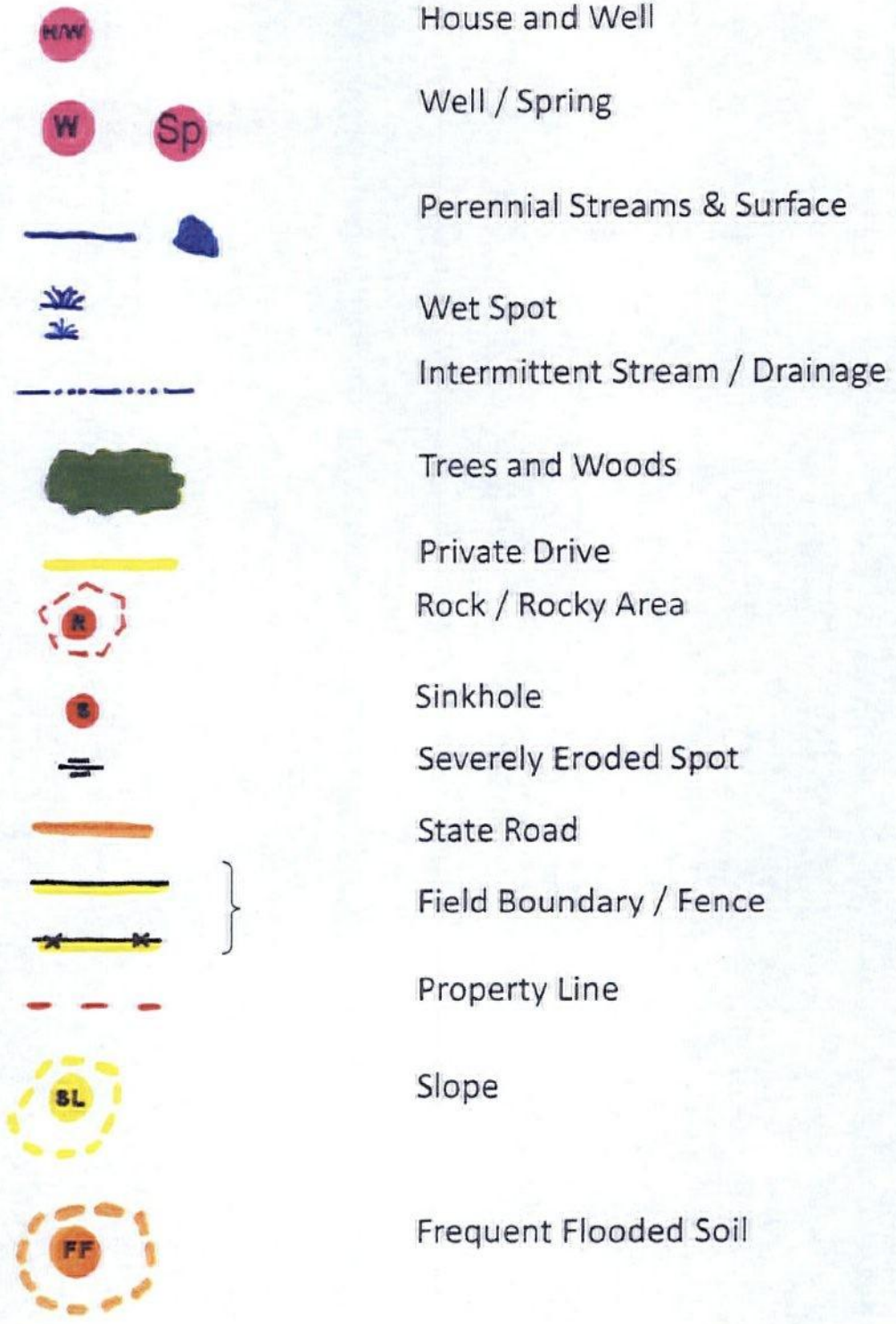
Scale: 1"= 660 ft.

LUTJM 3-4

AERIAL MAP

N

Legend for Site Plan



House and Well

Well / Spring

Perennial Streams & Surface

Wet Spot

Intermittent Stream / Drainage

Trees and Woods

Private Drive

Rock / Rocky Area

Sinkhole

Severely Eroded Spot

State Road

Field Boundary / Fence

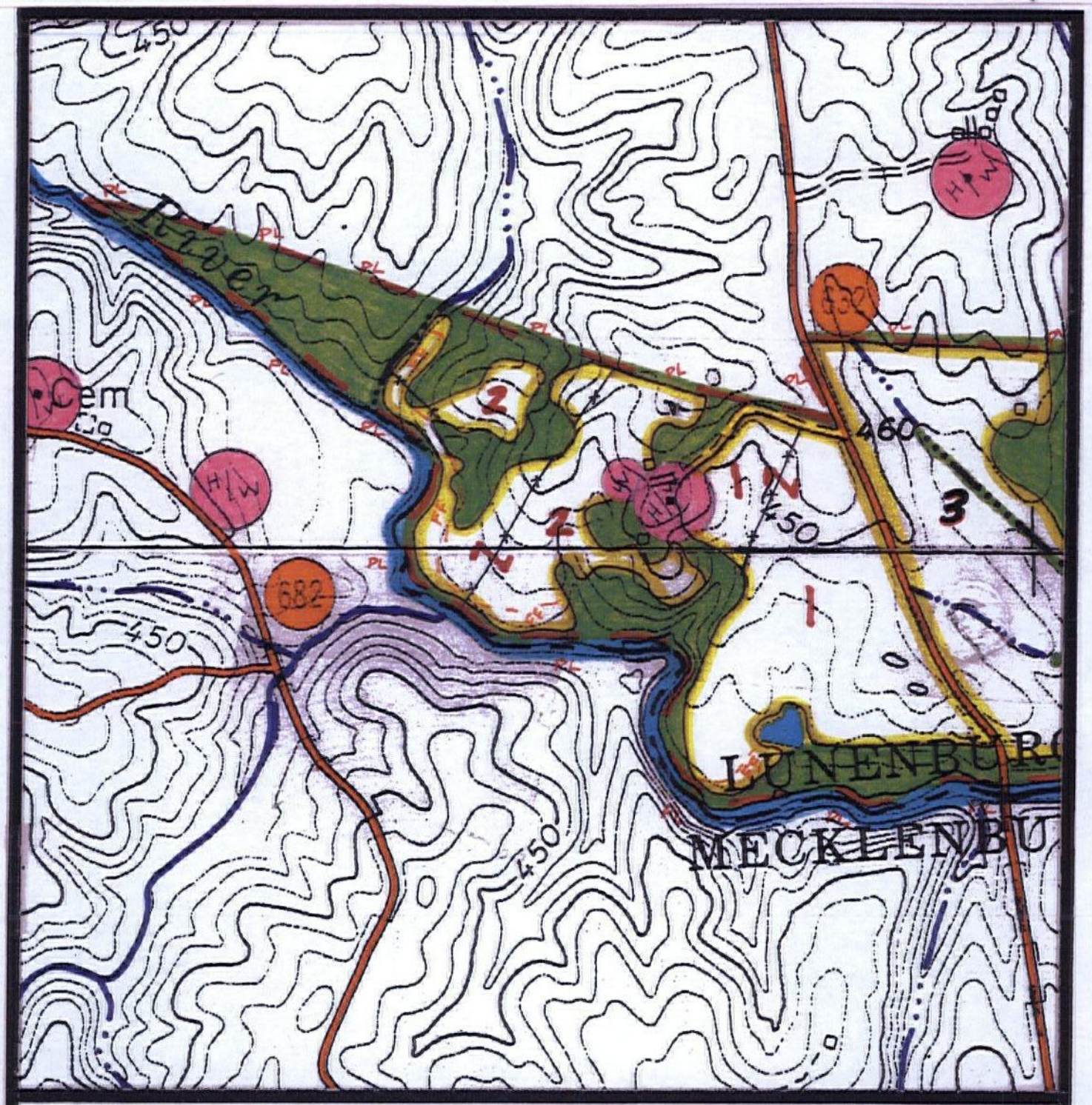
Property Line

Slope

Frequent Flooded Soil

Recyc Systems™ Inc.

(Biosolids Land Application)



Scale: 1"= 660 ft.

LUTJM 1-2

SITE PLAN

N

Recyc Systems™ Inc.

(Biosolids Land Application)

Scale: 1"= 660 ft.

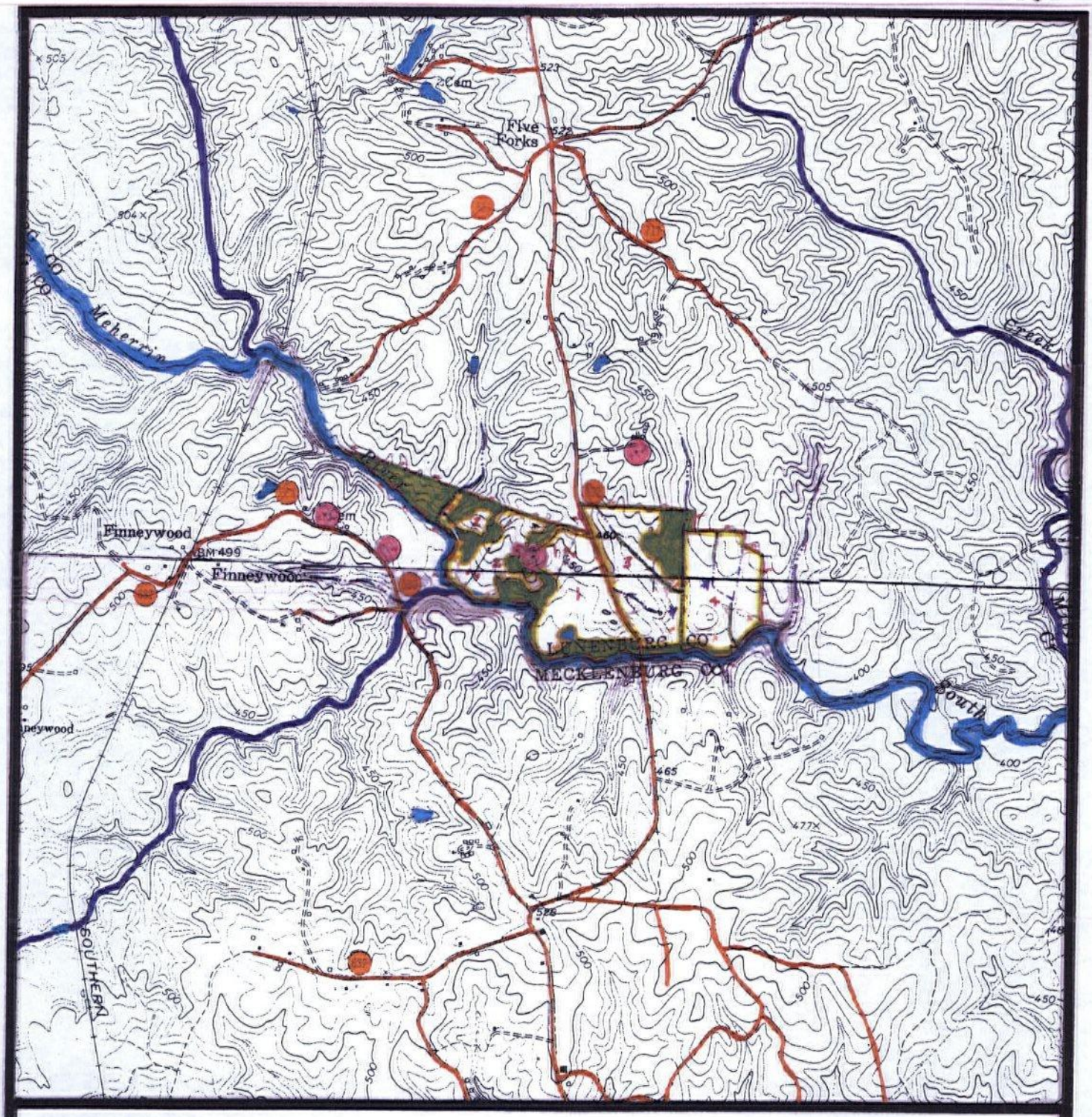
LUTJM 1, 3-4

SITE PLAN

N

Recyc Systems™ Inc.

(Biosolids Land Application)



Scale: 1"= 2000 ft.

LUTJM 1-4

TOPOGRAPHIC MAP

N